Silver- and vanadium-containing multimetal oxide and its use

Abstract

A multimetal oxide of the formula I

$$Ag_{a-b}M_bV_2O_x * c H_2O$$
, I

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where M is a metal selected from the group consisting of Li, Na, K, Rb, Cs, Tl, Mg, Ca, Sr, Ba, Cu, Zn, Cd, Pb, Cr, Au, Al, Fe, Co, Ni and/or Mo,

- 15 a is from 0.3 to 1.9 and
 - b is from 0 to 0.5, with the proviso that the difference (a-b) \geq 0.1 and
- 20 c is from 0 to 20 and
 - x is a number determined by the valence and amount of elements different from oxygen in the formula I,
- 25 has a crystal structure giving an X-ray powder diffraction pattern which displays reflections at the lattice spacings d of 15.23 ± 0.6 , 12.16 ± 0.4 , 10.68 ± 0.3 , 3.41 ± 0.04 , 3.09 ± 0.04 , 3.02 ± 0.04 , 2.36 ± 0.04 and 1.80 ± 0.04 Å.
- 30 Precatalysts and catalysts produced therefrom for the partial oxidation of aromatic hydrocarbons are also provided.

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